



Maine Farm Safety Program

Bulletin #2337

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Wagon Safety

Wagons used on the farm should be well designed and constructed. They should be able to withstand the stress of hauling heavy loads over rough ground, farm lanes, lots and public loads. Choose the best type for your farm operation.

◆ **Before Beginning**

Read the instruction manuals supplied with the wagon, noting all safety, operating, and maintenance recommendations. Inspect the wagon before the work season and do needed reconditioning and repairs. Check the tires for proper inflation and soundness before loading.

◆ **Using the Wagon**

Use a tractor large enough to handle and stop the load without trouble. Use sturdy locking safety hitch pins. Use a locking jack, or jack and blocks, for hitching and unhitching a two-wheeled or tandem center-balanced wagon. Use standard hand signals when someone is helping with hitching.

Never climb into a wagon with an unloading mechanism when it is running. Turn off the power at the tractor before doing any inspection or maintenance work. Shield any power shafts, pulleys, gears, beaters, augers and conveyers on wagons and keep away from moving parts.

The tractor operator pulling a wagon should take care to start and stop smoothly when people are working on the wagon. Loaded wagons should be pulled at

Wagon Safety

- ◆ **Stay out of a wagon when an unloading mechanism is running.**
- ◆ **Don't overload the wagon, its tires or the tow vehicle.**
- ◆ **Never allow anyone between the tow vehicle and the wagon while they are moving.**
- ◆ **Use a sturdy locking hitch.**



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reasonable speed to maintain control and should be kept clear of ditches, steep banks and any other field or farm obstacles. Also, distribute the load evenly and if necessary, secure it so that it cannot slide or fall. Do not overload the wagon.

Keep wagons clean of residual materials to minimize the chance of workers slipping while on the wagon.

Do not permit anyone to ride a wagon while standing on the wagon's tongue. Only necessary workers should ride on the wagon, but never between the tractor and wagon on the tongue. Be sure the workers always have secure footing, and communicate with sign language if necessary to warn workers of any unexpected movements.

◆ Falls from Wagons

Falls are the leading cause of wagon-related injuries. Falls happen when workers lose their balance while handling heavy materials, slip, stumble, wear improper footwear, catch their clothing on protrusions, jump from moving wagons, or climb

on and off wagons. Falls also happen when extra riders, including children, are on or in the wagon. Falls into powered mechanisms such as conveyors, beaters, PTOs or augers usually result in serious injuries.

◆ Stopping

The tractor pulling the wagon must have the power, weight, traction and braking ability to control the load. Slow down on descents because of the danger of jackknifing or pushing off the road. You must be able to prevent rollback when stopped on an upgrade. Putting brakes on wagons can make stopping easier and safer, especially on public and farm roads.

◆ Preventing Accidents

Keep wagons in good condition. Keep all shielding in place. Lubricate and adjust power-driven components properly. Read and adhere to the safety, operating and maintenance recommendations in the manufacturing instruction manuals. Inspect the wagon box or bed before the work season begins, do needed reconditioning or repairs and check the lubrication of the axle bearings and the steering system. Keep safety signs and devices clean. Make sure the tires are sturdy, the correct type and capacity for the job.

Use a sturdy safety locking drawpin, which cannot jump or work its way out. Lift a wagon tongue from the side using your legs, not your back. Do not overload. Watch climbing on and off and never do so while the wagon is moving.





Be sure everyone is out of the way before moving equipment, especially when backing up. Also check underneath for small children or animals.

◆ **Loading or Unloading a Stationary Wagon**

Turn off the engine, lock the brakes and remove the keys of the tractor. Have secure footing and lift heavy objects or materials properly to avoid back strain. Watch your step on the wagon and take care not to lose your balance when lifting, carrying or shoveling.

◆ **Types of Wagons and Precautions**

Box or barge wagons: Distribute heavy materials evenly in these wagons, and do not fill them to overflowing.

Flat-rock wagons: Check for hazards, such as broken rack boards or stringers, protruding nails and splinters. Make needed repairs and load uniformly to avoid tipping.

Forage or ensilage wagons: Watch the added hazards of power shafts, pulleys, gears, beaters, augers and conveyors. Keep shields in place and allow no one to enter the wagon while the power is on. Turn off the power at the tractor before inspecting or doing maintenance.

Rear and side dump wagons: Never crawl under or put an arm or head under a raised bed unless it is securely blocked. When dumping, keep everyone back. Start the load sliding before reaching full height to

reduce the chance of tipping. Unload on a level surface.

Auger wagons: These wagons can haul, mix and unload a variety of grains, feeds and other materials. Keep all shields in place. Stop the power before unclogging or working on these wagons. Stay out of the wagon when the auger is in motion.

Grain carts: These are center-balanced wagons with a PTO-driven (power take-off driven) unloading auger, spout and a bottom door to permit gravity unloading into grain holding pits. Put on the proper shields and turn off the PTO power before working around it. Use a tractor with enough power to handle and safely stop the cart.

Two-wheeled wagon: Load these wagons from the front first. Do not exceed the hitch support capacity of the towing vehicle. Keep speed moderate and slow down if bouncing or whipping begins.

Manure spreaders: These may not be thought of as wagons, but they are wheeled haulers and pulled by tractors. Keep the PTO and other shields in place. Make sure the PTO shaft guard is free-turning and not corroded to the shaft. Use a tractor with ample power and weight to handle the load. Stay clear of the beater area and turn off the power before cleaning or inspecting any mechanism.

Be sure the workers always have secure footing, and communicate with sign language if necessary to warn workers of any unexpected movements.



◆ **General Safety Reminders**

1. Read the instruction manual. Note safety, operating and maintenance recommendations.
2. Inspect wagons before the work season and make needed reconditioning and repairs.
3. Check the tires for proper inflation and soundness.
4. Use only sturdy, locking safety hitchpins.
5. Distribute the load evenly. Secure it so that it cannot slide or fall off. Do not overload the wagon.
6. With self-unloading wagons, keep all shields in place and stay away from beaters and other moving parts. Never allow anyone to get in the wagon when it is operating.

This Maine Farm Safety Fact Sheet is part of an educational fact sheet series produced by the University of Maine Cooperative Extension. For more information on farm safety, contact your county Extension office.



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